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National Board of Medical Examiners

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW JERSEY**

Jason Zangara, Plaintiff, v. National Board of Medical Examiners, Defendant.	Civil No. 3:22-cv-01559-GC-LHG Motion Returnable November 7, 2022
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DECLARATION OF CAROL MORRISON, PH.D.

1. My name is Carol Morrison. I am a Principal Psychometrician at the National Board of Medical Examiners (“NBME”). Unless otherwise stated, I have personal knowledge of the facts stated below, based on my work at NBME and my review of company records maintained in the ordinary course of business, as referenced below.

2. NBME is a non-profit organization whose mission is to help protect the public health through the development and administration of high-quality examinations for health professionals.

3. NBME co-sponsors the United States Medical Licensing Examination (“USMLE”), which is made up of three “Step” exams - Steps 1, 2 and 3. As part of their mission to help ensure safe and effective patient care, licensing authorities across the country rely upon the USMLE to help evaluate the qualifications of individuals seeking an initial license to practice medicine.

4. NBME separately develops and sells standardized subject examinations for use as assessment tools by medical educators. NBME subject examinations provide medical schools with a tool for measuring examinees’ understanding of the basic sciences.

5. The Comprehensive Basic Science Examination (“CBSE”) is an NBME subject examination. It is a general, integrated achievement test covering material typically learned during basic science education, with somewhat more emphasis on second-year courses in medical schools with traditional criteria. The exam reflects content coverage on USMLE Step 1 and uses the same item formats. Performance on the CBSE helps medical schools identify students’ weaknesses prior to taking the Step 1 examination.

6. NBME subject examinations also include Clinical Science examinations. The Clinical Science examinations are used to assess third-year medical students' knowledge in specific disciplines at the end of traditional clerkships.

7. Medical schools and other institutions that utilize these and other NBME subject examinations choose the subject examinations they will order and set individual policies and procedures for when the examinations will be taken, who takes the examinations, and how the institution will use the scores, including whether their students must achieve a minimum score on the test and, if so, what that score will be.

8. Only a school may purchase a subject examination, not an individual student.

9. Most of the institutions that use subject examinations are medical schools, which usually administer the subject examinations at their schools. Institutions may also opt to have their subject examinations administered at a test center run by Prometric, Inc., a third-party vendor.

10. An examinee's subject examination score is based on the number of correct answers the examinee provides on the exam. If an examinee does not answer a question, that counts as a wrong answer and results in a lower score.

Scores are not determined based on a comparison of how the examinee performed compared to other examinees.

11. It is my understanding that the plaintiff in this case believes that the CBSE exam and other NBME subject examinations are scored on a “curve.” This is not a technical term that is used in the field of psychometrics, but it is my understanding that this term is used colloquially to refer to scoring or grading examinees or students relative to the performance of other examinees or students. That is *not* how the CBSE or other NBME subject examinations are scored. As discussed above, an examinee’s score is based on the number of correct answers the examinee provides on the exam, not on how his or her performance compares to other examinees.

12. Likewise, Step 1 of the USMLE is not scored on a “curve.” An examinee’s score is based on the number of correct answers the examinee provides on the exam, not on how his or her performance compares to other examinees.

13. With respect to the CBSE examinations taken by Jason Andrew Zangara prior to early 2022, his scores were reported as a scaled score that approximated a USMLE Step 1 score. Scores are now reported as a percentage. Examinees receive a Total Equated Percent Correct Score that represents the percentage of content mastered, with scores ranging from 0% to 100%. To obtain a Total Equated Percent Correct Score, a raw score is first determined based on the

number of correct answers and incorrect answers (including unanswered questions that are counted as incorrect). An equated score is then determined using a statistical process that adjusts scores from different test forms in light of the different levels of question difficulty.

14. Equating is a standard assessment practice which ensures that a score for an exam taken on one date is equivalent to — *i.e.*, has the same meaning as — a score from another administration of that exam, even though the questions on the two exams are not identical.

15. The Total Equated Percent Correct Score is based on the number of correct answers the examinee provided, and it is not based on how the examinee performance compared to other examinees. It is not scored on a “curve,” as colloquially understood.

16. NBME subject exams are scored electronically as part of the computer-based test delivery process. NBME then provides the score reports to the schools that purchased the exam for use in their curriculum. If they choose to do so, schools can provide copies of the score reports (now called “Performance Reports”) to their students.

17. It is my understanding that if an examinee seeks disability-based testing accommodations on a subject examination, the examinee’s institution, not NBME, determines whether any accommodations are warranted, decides what

specific accommodations may be reasonable for a particular examinee, and bears all costs associated with any such accommodations. The school then advises NBME on the accommodations it wishes to grant.

18. Attached at Exhibit A is a true and correct copy of a CBSE Score Interpretation Guide and Roster Report for Caribbean Medical University School of Medicine for February 11, 2022.

19. Attached at Exhibit B is a true and correct copy of a CBSE Score Interpretation Guide for Students and Examinee Performance Profile for Jason Andrew Zangara for the test date April 7, 2017.

20. Attached at Exhibit C is a true and correct copy of a CBSE Score Interpretation Guide for Students and Examinee Performance Profile for Jason Andrew Zangara for the test date June 19, 2018.

21. Attached at Exhibit D is a true and correct copy of a CBSE Score Report for Jason Andrew Zangara for the test date November 14, 2019.

22. Attached at Exhibit E is a true and correct copy of an Examinee Performance Profile Report for the Pediatrics Examination (a Clinical Science examination) for Jason Andrew Zangara dated June 18, 2021.

23. Attached at Exhibit F is a true and correct copy of an Examinee Performance Profile Report for the Psychiatry Examination (a Clinical Science examination) for Jason Andrew Zangara dated June 26, 2021.

24. Attached at Exhibit G is a true and correct copy of an Examinee Performance Profile Report for the Family Medicine Modular Core Examination (a Clinical Science examination) for Jason Andrew Zangara dated July 28, 2021.

25. Attached at Exhibit H is a true and correct copy of an Examinee Performance Profile Report for the Medicine Examination (a Clinical Science examination) for Jason Andrew Zangara dated August 3, 2021.

26. Attached at Exhibit I is a true and correct copy of a CBSE Score Report for Jason Andrew Zangara dated September 17, 2021.

27. Attached at Exhibit J is a true and correct copy of a CBSE Score Report for Jason Andrew Zangara dated November 1, 2021.


28. Attached at Exhibit K is a true and correct copy of a CBSE Score Report for Jason Andrew Zangara dated February 11, 2022.

29. Attached at Exhibit L is a true and correct copy (formatted to .pdf) of an NBME Test Accommodation Notification Form for the Caribbean Medical University School of Medicine for the CBSE test window starting January 31, 2022.

30. Attached at Exhibit M is a true and correct copy of a sample Examinee Performance Report for the CBSE reflecting current score reporting.

I declare under the penalty of perjury that the foregoing is true and correct.

Executed on October 17, 2022.

DocuSigned by:

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Carol Morrison, Ph.D.

Exhibit A

SUBJECT EXAMINATION PROGRAM**COMPREHENSIVE BASIC SCIENCE EXAMINATION****SCORE INTERPRETATION GUIDE**

NBME® subject examinations provide medical schools with a tool for measuring examinees' understanding of the basic sciences. Although these examinations are designed to be broadly appropriate as part of overall examinee assessment, course objectives vary across schools, and the congruence between subject examination content and course objectives should be considered when interpreting test scores and determining grading standards. Specifically, subject examination scores should not be used alone, but rather in conjunction with other indicators of examinee performance in determination of grades.

CBSE Scores

Because the Comprehensive Basic Science Examination (CBSE) and the United States Medical Licensing Examination® (USMLE®) Step 1 cover very similar content, CBSE performance can be used in conjunction with other information to assess readiness for Step 1. The CBSE score represents an estimate of an examinee's performance on the USMLE® Step 1 if he/she had taken both exams under the same conditions and with the same level of knowledge. Estimated performance based on taking CBSE is not a guarantee of future performance on Step 1. Many factors, including changing levels of knowledge and testing conditions, may result in a Step 1 score that is higher or lower than the estimated score.

Precision of Scores

Measurement error is present on all tests, and the standard error of estimate (SEE) provides an index of the (im)precision of scores. If an examinee tested repeatedly under the same conditions on a different set of items covering the same content, his/her CBSE score would fall within one SEE of the current score two-thirds of the time. The SEE on this exam is 8 points.

Score and Performance Feedback

Summary information on the examinee group tested, examination purpose and number of items scored is provided on each page of the feedback. The [*Roster of CBSE Scores*](#) reports a total test score for each examinee. Reported scores also appear in a comma separated text file that can be downloaded. An [*Examinee Performance Profile*](#), which graphically displays content areas of strength and weakness, is provided for each examinee.

If there were at least 2 examinees, [*CBSE Score Descriptive Statistics*](#) for reported scores are provided along with a [*Frequency Distribution*](#) of the total test score. If there were at least 5 examinees for a single form administration, a detailed [*Content Area Item Analysis Report*](#) summarizing the general content of each item on the exam along with group item performance is provided. Content area item descriptors and group item performance also appear in a file that can be downloaded. If there were at least 5 examinees for a single form administration or 10 examinees for a multiple form administration, a [*Summary Content Area Item Analysis Report*](#) is provided.

If there were at least 15 examinees, a [*School Summary Performance Profile*](#), which graphically displays areas of strength and weakness in each major content area for your specific test administration, is provided.

Norms

Total academic year norms are provided for two relevant national groups to aid in the interpretation of examinee performance. The two most recent sets of norms that have been developed for this examination are provided for your convenience and are reported on the CBSE score scale. Norms can also be found on the [*MyNBME Services Portal \(MyNBME\)*](#).

SUBJECT EXAMINATION PROGRAM**COMPREHENSIVE BASIC SCIENCE EXAMINATION****2020-2021 ACADEMIC YEAR NORMS****Interpreting Academic Norms**

- Norms are provided to aid in the interpretation of examinee performance.
- They make it possible to compare examinees' scores with the performance of a norm group.
- Norm group characteristics:
 - Group 1: Examinees from LCME-accredited medical schools who took a form of this examination with a test purpose code of 'end-of-course', 'end-of-year', or 'other' for the first time during the academic year from 7/1/2020 through 6/30/2021.
 - Group 2: Examinees from LCME-accredited medical schools with a graduation year of 2023 who took a form of this examination during the academic year from 7/1/2020 through 6/30/2021. If an examinee took CBSE multiple times for progress testing or other purposes, only the final attempt in the current academic year is included.
- Group 1 is the norm group that has previously been reported for CBSE. Group 2 is an alternative norm group that provides a comparison to examinees' final CBSE attempt during their second year of medical school. There is substantial overlap between Group 1 and Group 2, but Group 2 also includes examinees from medical schools that administer CBSE multiple times; examinees from these schools are excluded from Group 1.

CBSE Score	Group 1 Percentile	Group 2 Percentile	CBSE Score	Group 1 Percentile	Group 2 Percentile
	Ranks	Ranks		Ranks	Ranks
252 and above	99	98	184	49	32
250	98	97	182	47	30
248	98	97	180	44	27
246	97	96	178	42	25
244	97	95	176	40	24
242	96	94	174	38	21
240	95	93	172	35	19
238	95	92	170	33	18
236	94	91	168	31	16
234	93	89	166	29	14
232	92	88	164	27	13
230	91	86	162	24	11
228	90	85	160	22	10
226	89	83	158	20	8
224	87	81	156	18	7
222	86	79	154	16	6
220	85	77	152	14	5
218	83	75	150	12	5
216	81	73	148	11	4
214	80	71	146	10	3
212	78	68	144	8	3
210	76	66	142	7	2
208	74	63	140	6	2
206	72	60	138	5	1
204	70	57	136	4	1
202	68	55	134	3	1
200	66	52	132	3	1
198	64	49	130	2	1
196	62	47	128	2	1
194	61	44	126	1	0
192	58	42	124	1	0
190	56	40	122	1	0
188	54	37	120	1	0
186	52	34	118 and below	1	0

Norm Group	Number of Schools	Number of Examinees	Mean	SD
Group 1	73	9,784	186.6	30.9
Group 2	94	11,570	198.2	28.4

Using the Table

- Locate an examinee's score in the column labeled "CBSE Score" and note the entry in the adjacent column labeled "Percentile Ranks" for the examinee group of interest. This number indicates the percentage of examinees that scored at or below the examinee's CBSE score.

SUBJECT EXAMINATION PROGRAM**COMPREHENSIVE BASIC SCIENCE EXAMINATION****2020-2021 ACADEMIC YEAR NORMS – YEAR 1 EXAMINEES****Interpreting Academic Norms**

- Norms are provided to aid in the interpretation of examinee performance.
- They make it possible to compare examinees' scores with the performance of a norm group.
- Norm group characteristics:
 - Examinees from LCME-accredited medical schools with a graduation year of 2024 who took a form of this examination during the academic year from 7/1/2020 through 6/30/2021. If an examinee took CBSE multiple times for progress testing or other purposes during the first year of medical school, only the final attempt in the current academic year is included.

Academic Years	Number of Schools	Number of Examinees	Mean	SD
2020-2021	24	2,616	158.8	20.5

Using the Table

- To use the table, locate an examinee's score in the column labeled "CBSE Score" and note the entry in the adjacent column labeled "Percentile Ranks." This number indicates the percentage of examinees that scored at or below the examinee's CBSE score.

Percentile		Percentile	
CBSE Score	Ranks	CBSE Score	Ranks
240 and above	100	164	64
238	100	162	59
236	100	160	54
234	100	158	49
232	100	156	45
230	100	154	41
228	100	152	37
226	100	150	33
224	100	148	30
222	99	146	26
220	99	144	22
218	99	142	19
216	99	140	17
214	99	138	15
212	99	136	13
210	99	134	11
208	99	132	9
206	98	130	7
204	98	128	6
202	98	126	6
200	98	124	5
198	97	122	4
196	96	120	3
194	96	118	3
192	95	116	2
190	94	114	2
188	92	112	1
186	91	110	1
184	90	108	1
182	89	106	0
180	87	104	0
178	84	102	0
176	83	100	0
174	80	98	0
172	77	96	0
170	74	94	0
168	71	92	0
166	68	90 and below	0

SUBJECT EXAMINATION PROGRAM**COMPREHENSIVE BASIC SCIENCE EXAMINATION****2019-2020 ACADEMIC YEAR NORMS****Interpreting Academic Norms**

- Norms are provided to aid in the interpretation of examinee performance.
- They make it possible to compare examinees' scores with the performance of a norm group.
- Norm group characteristics:
 - Group 1: Examinees from LCME-accredited medical schools who took a form of this examination with a test purpose code of 'end-of-course', 'end-of-year', or 'other' for the first time during the academic year from 7/1/2019 through 6/30/2020.
 - Group 2: Examinees from LCME-accredited medical schools with a graduation year of 2022 who took a form of this examination during the academic year from 7/1/2019 through 6/30/2020. If an examinee took CBSE multiple times for progress testing or other purposes, only the final attempt in the current academic year is included.
- Group 1 is the norm group that has previously been reported for CBSE. Group 2 is an alternative norm group that provides a comparison to examinees' final CBSE attempt during their second year of medical school. There is substantial overlap between Group 1 and Group 2, but Group 2 also includes examinees from medical schools that administer CBSE multiple times; examinees from these schools are excluded from Group 1.

CBSE Score	Group 1 Percentile	Group 2 Percentile	CBSE Score	Group 1 Percentile	Group 2 Percentile
	Ranks	Ranks		Ranks	Ranks
252 and above	99	99	184	49	39
250	99	98	182	47	36
248	98	98	180	44	34
246	98	98	178	42	32
244	98	97	176	40	29
242	97	96	174	37	27
240	96	95	172	35	25
238	96	94	170	33	23
236	95	93	168	31	21
234	94	92	166	28	19
232	93	91	164	26	16
230	92	90	162	24	15
228	91	88	160	22	13
226	90	87	158	20	12
224	89	85	156	18	10
222	87	83	154	17	8
220	86	82	152	15	7
218	84	80	150	13	6
216	83	78	148	12	5
214	81	76	146	10	4
212	79	73	144	9	4
210	78	72	142	8	3
208	76	69	140	7	2
206	74	66	138	6	2
204	72	64	136	5	2
202	70	62	134	4	1
200	68	60	132	3	1
198	66	57	130	3	1
196	64	54	128	2	0
194	61	52	126	1	0
192	59	49	124	1	0
190	57	47	122	1	0
188	54	44	120	0	0
186	52	42	118 and below	0	0

Norm Group	Number of Schools	Number of Examinees	Mean	SD
Group 1	67	7,837	185.8	30.2
Group 2	101	11,628	193.4	28.1

Using the Table

- Locate an examinee's score in the column labeled "CBSE Score" and note the entry in the adjacent column labeled "Percentile Ranks" for the examinee group of interest. This number indicates the percentage of examinees that scored at or below the examinee's CBSE score.

SUBJECT EXAMINATION PROGRAM**COMPREHENSIVE BASIC SCIENCE EXAMINATION****2019-2020 ACADEMIC YEAR NORMS – YEAR 1 EXAMINEES****Interpreting Academic Norms**

- Norms are provided to aid in the interpretation of examinee performance.
- They make it possible to compare examinees' scores with the performance of a norm group.
- Norm group characteristics:
 - Examinees from LCME-accredited medical schools with a graduation year of 2023 who took a form of this examination during the academic year from 7/1/2019 through 6/30/2020. If an examinee took CBSE multiple times for progress testing or other purposes during the first year of medical school, only the final attempt in the current academic year is included.

Academic Years	Number of Schools	Number of Examinees	Mean	SD
2019-2020	22	1,772	146.9	24.4

Using the Table

- To use the table, locate an examinee's score in the column labeled "CBSE Score" and note the entry in the adjacent column labeled "Percentile Ranks." This number indicates the percentage of examinees that scored at or below the examinee's CBSE score.

Percentile		Percentile	
CBSE Score	Ranks	CBSE Score	Ranks
240 and above	100	164	80
238	100	162	79
236	100	160	77
234	100	158	74
232	99	156	71
230	99	154	68
228	99	152	65
226	99	150	61
224	99	148	58
222	99	146	54
220	99	144	50
218	99	142	45
216	98	140	42
214	98	138	38
212	98	136	35
210	98	134	32
208	98	132	29
206	98	130	26
204	98	128	22
202	97	126	19
200	97	124	15
198	97	122	14
196	96	120	11
194	96	118	9
192	96	116	8
190	95	114	7
188	94	112	5
186	94	110	4
184	93	108	4
182	92	106	3
180	91	104	2
178	90	102	1
176	89	100	1
174	88	98	1
172	86	96	0
170	85	94	0
168	83	92	0
166	82	90 and below	0

SUBJECT EXAMINATION PROGRAM

COMPREHENSIVE BASIC SCIENCE EXAMINATION

ROSTER REPORT



665060 - Caribbean Medical University School of M

Reporting Group: Medical Students

Test Purpose: During Instruction/Training

N Scored Items: 195

Test Date(s): 02/11/2022

Order ID: D16484

N Examinees: 1

Roster of CBSE Scores

The roster of scores contains score(s) for each examinee who tested on the specified test date(s). These same scores also appear in a comma separated value text file that can be downloaded and used to export scores into your local database. Please refer to the Score Interpretation Guide for information about how to interpret the scores.

ID	Name	Total
2138	Zangara Jason Andrew	174

Exhibit B

**NBME****National Board of Medical Examiners****Subject Examination Program****Score Interpretation Guide for Students****NBME® Comprehensive Basic Science Examination**

The enclosed Performance Report lists your Subject Test score on the Comprehensive Basic Science Examination and provides a Performance Profile to aid in self-assessment. The content covered on the Comprehensive Basic Science Examination (CBSE) is based on the United States Medical Licensing Examination® (USMLE®) Step 1. The CBSE is basically a shorter version of Step 1 that covers material that is typically learned during basic science medical education. Subject test scores are scaled so that a score of 70 on the CBSE is approximately equivalent to a score of 200 on USMLE Step 1. The vast majority of scores range from 45 to 95, and although the scores have the "look and feel" of percent-correct scores, they are not. Because the Comprehensive Basic Science Examination and Step 1 cover similar content, this scale provides a useful tool for comparing your performance with that of a large, nationally representative group taking the licensing exam at the end of the second year of medical school. Additional information about the relationship between CBSE scores and Step 1 scores is provided in the table below.

Precision of Scores

Measurement error is present on all tests, and the standard error of measurement (SEM) provides an index of the (im)precision of scores. The SEM indicates how far the score a student earns on the examination is likely to stray from his/her "true" proficiency level. The SEM is approximately 3 points for the CBSE Subject Examination scores. Using the SEM, it is possible to calculate a score interval that indicates how much a score might vary across repeated testing using different sets of items covering the same content. An interval that will encompass about two thirds of the observed scores for a given true score may be found by adding the SEM to a score and subtracting it from that score. For example, if a student's true proficiency on the Subject Examination is 60, the score he/she achieved on the examination will usually (two times out of three) fall between 57 and 63 ($60 - 3$ and $60 + 3$).

Approximate USMLE Performance Equivalents

The table to the right provides approximate performance equivalents for USMLE Step 1, making it possible for you to translate your Subject Test score to the scale used for Step 1. *Specific information on Step 1 and the current minimum passing score is available on the web site for USMLE (<http://www.usmle.org>).*

To use the table, locate your Subject Test score in the associated column and note the entry in the column headed "Step 1 Equivalent". For example, if your score is 62, the corresponding entry of 180 indicates that your performance on the Subject Test is approximately equivalent to a Step 1 score of 180.

NOTE: This examination is not intended to predict performance on USMLE. Rather, it is intended to be used as a tool to determine your relative areas of strength and weakness in general topic areas.

Approximate Step 1 Equivalents

Score	Step 1 Equivalent	Score	Step 1 Equivalent
≥ 94	≥ 260	68	195
94	260	66	190
92	255	64	185
90	250	62	180
88	245	60	175
86	240	58	170
84	235	56	165
82	230	54	160
80	225	52	155
78	220	50	150
76	215	48	145
74	210	46	140
72	205	≤ 46	≤ 140
70	200		

**NBME****National Board of Medical Examiners****Subject Examination Program****Examinee Performance Profile****Comprehensive Basic Science****665060 - Caribbean Medical University School of M**

ID: 2138

Test Date(s): 04/07/2017

Name: Zangara Jason Andrew

Total Scaled Score: 49

The score you received on this examination is shown above. This Performance Profile is provided to aid in self-assessment. The shaded area defines a borderline level of performance for each content area; borderline performance is comparable to a HIGH FAIL/LOW PASS on the total test of USMLE® Step 1. (See NOTE on Page 1.)

Performance bands indicate areas of relative strength and weakness. Some bands are wider than others. The width of a performance band reflects the precision of measurement: narrower bands indicate greater precision. A ◀◀ or ▶▶ symbol indicates that your performance band extends beyond the displayed portion of the scale. Small differences in the location of bands should not be over-interpreted. If two bands overlap, performance in the associated areas should be interpreted as similar. Because CBSE is designed to be integrative, many items contribute to more than one content area. Use caution when interpreting differences in performance across content areas.

Additional information about the topics covered in each content area can be found in the *USMLE Step 1 Content Description and Sample Test Materials* at www.usmle.org. An explanation of your score along with a table of approximate USMLE Step 1 performance equivalents for CBSE scores is included in the *Score Interpretation Guide for Students*.

	Lower Performance	Borderline Performance	Higher Performance
Discipline			
Behavioral Sciences	◀◀		
Biochemistry	◀◀◀◀◀◀		
Gross Anatomy & Embryology	◀◀◀◀◀◀		
Histology & Cell Biology	◀◀◀◀◀◀		
Microbiology & Immunology	◀◀◀◀◀◀		
Pathology	◀◀		
Pharmacology	◀◀		
Physiology	◀◀◀◀◀◀		
System			
General Principles of Foundational Science	◀◀◀◀◀◀		
Behavioral Health and Nervous Systems/Special Senses	◀◀		
Musculoskeletal, Skin, & Subcutaneous Tissue	◀◀◀◀◀◀		
Cardiovascular System	◀◀◀◀◀◀		
Respiratory System	◀◀◀◀◀◀		
Gastrointestinal System	◀◀		
Renal/Urinary System	◀◀◀◀◀◀◀◀◀◀◀◀		
Multisystem Processes & Disorders	◀◀◀◀◀◀◀◀◀◀		

Exhibit C



NBME[®] National Board of Medical Examiners

Subject Examination Program

Score Interpretation Guide for Students

NBME[®] Comprehensive Basic Science Examination

The enclosed Performance Report lists your Subject Test score on the Comprehensive Basic Science Examination and provides a Performance Profile to aid in self-assessment. The content covered on the Comprehensive Basic Science Examination (CBSE) is based on the United States Medical Licensing Examination[®] (USMLE[®]) Step 1. The CBSE is basically a shorter version of Step 1 that covers material that is typically learned during basic science medical education. Subject test scores are scaled so that a score of 70 on the CBSE is approximately equivalent to a score of 200 on USMLE Step 1. The vast majority of scores range from 45 to 95, and although the scores have the "look and feel" of percent-correct scores, they are not. Because the Comprehensive Basic Science Examination and Step 1 cover similar content, this scale provides a useful tool for comparing your performance with that of a large, nationally representative group taking the licensing exam at the end of the second year of medical school. Additional information about the relationship between CBSE scores and Step 1 scores is provided in the table below.

Precision of Scores

Measurement error is present on all tests, and the standard error of measurement (SEM) provides an index of the (im)precision of scores. The SEM indicates how far the score a student earns on the examination is likely to stray from his/her "true" proficiency level. The SEM is approximately 3 points for the CBSE Subject Examination scores. Using the SEM, it is possible to calculate a score interval that indicates how much a score might vary across repeated testing using different sets of items covering the same content. An interval that will encompass about two thirds of the observed scores for a given true score may be found by adding the SEM to a score and subtracting it from that score. For example, if a student's true proficiency on the Subject Examination is 60, the score he/she achieved on the examination will usually (two times out of three) fall between 57 and 63 ($60 - 3$ and $60 + 3$).

Approximate USMLE Performance Equivalents

The table to the right provides approximate performance equivalents for USMLE Step 1, making it possible for you to translate your Subject Test score to the scale used for Step 1. *Specific information on Step 1 and the current minimum passing score is available on the web site for USMLE (<http://www.usmle.org>).*

To use the table, locate your Subject Test score in the associated column and note the entry in the column headed "Step 1 Equivalent". For example, if your score is 62, the corresponding entry of 180 indicates that your performance on the Subject Test is approximately equivalent to a Step 1 score of 180.

NOTE: This examination is not intended to predict performance on USMLE. Rather, it is intended to be used as a tool to determine your relative areas of strength and weakness in general topic areas.

Approximate Step 1 Equivalents

Score	Step 1 Equivalent	Score	Step 1 Equivalent
≥ 94	≥ 260	68	195
94	260	66	190
92	255	64	185
90	250	62	180
88	245	60	175
86	240	58	170
84	235	56	165
82	230	54	160
80	225	52	155
78	220	50	150
76	215	48	145
74	210	46	140
72	205	≤ 46	≤ 140
70	200		



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National Board of Medical Examiners
Subject Examination Program

665060 - Caribbean Medical University School of M

Total Scaled Score: 52

Additional information about the topics covered in each content area can be found in the *USMLE Step 1 Content Description and Sample Test Materials* at www.usmle.org. An explanation of your score along with a table of approximate USMLE Step 1 performance equivalents for CBSE scores is included in the *Score Interpretation Guide for Students*.

Page 2 of 2

Exhibit D



NBME®

National Board of Medical Examiners® Subject Examination Program Comprehensive Basic Science Examination Score Report

ID: 2138

Test Date: November 14, 2019

Name: Zangara Jason Andrew

665060 - Caribbean Medical University School of M

Your Performance

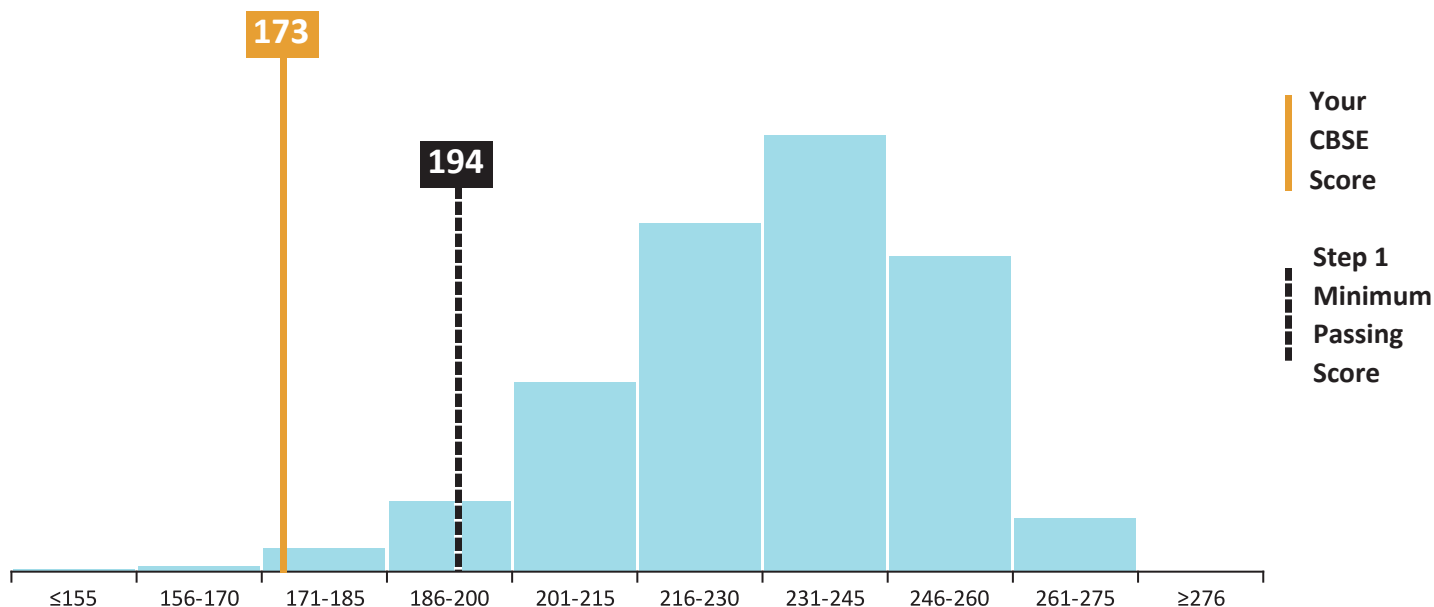
Your CBSE Score

173

Because the Comprehensive Basic Science Examination (CBSE) and the United States Medical Licensing Examination® (USMLE®) Step 1 cover very similar content, CBSE performance can be used in conjunction with other information to assess readiness for Step 1. Your CBSE score represents an estimate of your performance on Step 1 if you had taken both exams under the same conditions and with the same level of knowledge. Estimated performance based on taking CBSE is not a guarantee of your future performance on Step 1. Many factors, including changing levels of knowledge and testing conditions, may result in a Step 1 score that is higher or lower than your estimated score.

Your Performance Compared to Other Examinees

The chart below represents the distribution of Step 1 scores for examinees from US and Canadian medical schools taking Step 1 for the first time between January 1, 2018 and December 31, 2018. Reported scores range from 1-300 with a mean of 231 and a standard deviation of 20.



If you tested repeatedly under the same conditions on a different set of items covering the same content, without learning or forgetting, your CBSE score would fall within one standard error of the estimate (SEE) of your current score two-thirds of the time. The SEE on this exam is 8 points.

Your CBSE score +/- SEE: 165 – 181

National Board of Medical Examiners®

Subject Examination Program

Comprehensive Basic Science Examination

Score Report

ID: 2138

Test Date: November 14, 2019

Name: Zangara Jason Andrew

665060 - Caribbean Medical University School of M

Your Relative Strengths and Weaknesses

The boxes below indicate areas of relatively lower or higher performance in each content area within the CBSE examination. A box in the "Higher" column indicates that your performance in that area was higher than your overall CBSE performance shown on page 1. A box in the "Same" column indicates that your performance in that area was similar to or the same as your overall CBSE performance. A box in the "Lower" column indicates that your performance in that area was lower than your overall CBSE performance. The percentage range of items from each content area on the CBSE examination is indicated below.

This information can be used to identify areas of strength and weakness to guide future study. Because the exam is highly integrative, NBME recommends reviewing all content areas if retaking the test.

Performance by Physician Task Relative to Your Overall CBSE Performance

	(% Items Per Test)	Lower	Same	Higher
Applying Foundational Science Concepts	(52 - 62%)			
Diagnosis	(20 - 31%)			
Management	(7 - 12%)			

Performance by System Relative to Your Overall CBSE Performance

	(% Items Per Test)	Lower	Same	Higher
General Principles	(13 - 19%)			
Behavioral Health and Nervous Systems/Special Senses	(9 - 13%)			
Reproductive & Endocrine Systems	(9 - 13%)			
Respiratory and Renal/Urinary Systems	(9 - 13%)			
Blood & Lymphoreticular and Immune Systems	(7 - 11%)			
Multisystem Processes & Disorders	(7 - 11%)			
Cardiovascular System	(6 - 10%)			
Musculoskeletal, Skin, & Subcutaneous Tissue	(6 - 10%)			
Gastrointestinal System	(5 - 9%)			
Biostatistics & Epidemiology/Population Health	(5 - 7%)			

National Board of Medical Examiners®
Subject Examination Program
Comprehensive Basic Science Examination
Score Report

ID: 2138

Test Date: November 14, 2019

Name: Zangara Jason Andrew




665060 - Caribbean Medical University School of M











Performance by Discipline Relative to Your Overall CBSE Performance

	(% Items Per Test)	Lower	Same	Higher
Pathology	(45 - 58%)			
Physiology	(26 - 34%)			
Pharmacology	(16 - 23%)			
Microbiology & Immunology	(15 - 22%)			
Biochemistry and Nutrition	(9 - 16%)			
Gross Anatomy & Embryology	(8 - 15%)			
Histology & Cell Biology	(9 - 13%)			
Behavioral Sciences	(8 - 12%)			

National Board of Medical Examiners®
Subject Examination Program
NBME Comprehensive Basic Science Examination Score Report
Supplemental Information: Understanding the Content Areas

The information below is a visual representation of the content weighting on this examination that may be informative in guiding remediation. Descriptions of the topics covered in these content areas, as well as other topics covered on USMLE Step 1, can be found in the information materials on the USMLE website (<https://www.usmle.org>). Please contact the Subject Examination team at subjectexams@nbme.org if you have additional questions.

Physician Task	(% Items Per Test)	
Applying Foundational Science Concepts	(52 - 62%)	
Diagnosis	(20 - 31%)	
Management	(7 - 12%)	

System	(% Items Per Test)	
General Principles	(13 - 19%)	
Behavioral Health and Nervous Systems/Special Senses	(9 - 13%)	
Reproductive & Endocrine Systems	(9 - 13%)	
Respiratory and Renal/Urinary Systems	(9 - 13%)	
Blood & Lymphoreticular and Immune Systems	(7 - 11%)	
Multisystem Processes & Disorders	(7 - 11%)	
Cardiovascular System	(6 - 10%)	
Musculoskeletal, Skin, & Subcutaneous Tissue	(6 - 10%)	
Gastrointestinal System	(5 - 9%)	
Biostatistics & Epidemiology/Population Health	(5 - 7%)	









Discipline	(% Items Per Test)	
Pathology	(45 - 58%)	
Physiology	(26 - 34%)	
Pharmacology	(16 - 23%)	
Microbiology & Immunology	(15 - 22%)	
Biochemistry and Nutrition	(9 - 16%)	
Gross Anatomy & Embryology	(8 - 15%)	
Histology & Cell Biology	(9 - 13%)	
Behavioral Sciences	(8 - 12%)	

Exhibit E

PEDIATRICS EXAMINATION**EXAMINEE PERFORMANCE PROFILE REPORT****ID: 2138****Name: Zangara Jason Andrew****665060 - Caribbean Medical University School of M****Total Equated Percent Correct Score: 52****Test Date(s): 06/18/2021****Score Interpretation Guide for Examinees**

The enclosed performance report lists your subject examination score and provides a performance profile to aid in self-assessment. NBME® subject examinations provide medical schools with a tool for measuring examinees' understanding of the clinical sciences. Questions on the examinations were written and reviewed by national test committees preparing material for Step 2 Clinical Knowledge (CK) of the United States Medical Licensing Examination® (USMLE®). Prior to publication, test forms are reviewed by a panel of course directors representing the content of each examination. Although these examinations are designed to be broadly appropriate as part of overall examinee assessment, course objectives vary across schools, and the congruence between subject examination content and course objectives should be considered when interpreting test scores.

Subject Examination Scores

The subject examination score is an equated percent correct score that represents mastery of the content domain assessed by the examination. It is calculated as a percentage of items in the total content domain that would be answered correctly based on an examinee's proficiency level on the test. The subject examination scores are equated across test administrations and are statistically adjusted for variations in test form difficulty. Consequently, these scores can be used to compare and track school and examinee performance over time.

The subject examination scores are placed on a classic percent correct metric to ease interpretation and use. This scale provides a useful tool for comparing your performance with that of a nationally representative group taking this examination as an end-of-clerkship assessment.

For recent administrations, the mean and standard deviation for first-time examinees from LCME-accredited U.S. and Canadian medical schools were approximately 79 and 8, respectively.

Precision of Scores

Measurement error is present on all tests, and the standard error of measurement (SEM) provides an index of the (im)precision of scores. The SEM indicates how far the score you earn on the examination is likely to stray from your "true" proficiency level. The SEM is approximately 4 for this examination.

Using the SEM, it is possible to calculate a score interval that indicates how much a score might vary across repeated testing using different sets of items covering the same content. An interval that will encompass about two thirds of the observed scores for a given true score may be found by adding the SEM to a score and subtracting it from that score. For example, if your true proficiency on the examination is 75, the score you achieved on the examination will usually (two times out of three) fall between 71 and 79 ($75 - 4$ and $75 + 4$).

PEDIATRICS EXAMINATION**EXAMINEE PERFORMANCE PROFILE REPORT****ID: 2138****Name: Zangara Jason Andrew****665060 - Caribbean Medical University School of M****Total Equated Percent Correct Score: 52****Test Date(s): 06/18/2021**

Your score is shown above. The performance profile provides information regarding your content area performance compared to the performance of first-time takers from LCME-accredited medical schools who took this examination as a final clerkship examination under standard testing conditions. The vertical line represents the mean performance of this comparison group.

Performance bands indicate areas of relative strength and weakness. Some bands are wider than others. The width of a performance band reflects the precision of measurement: narrower bands indicate greater precision. Striped shading of a band indicates that your performance band extends beyond the displayed portion of the scale. Because many of the content areas are based on a relatively small number of items, small differences in the location of bands should not be over-interpreted. If two bands overlap, performance in the associated areas should be interpreted as similar. Please note that many items may contribute to more than one content area. Use caution when interpreting differences in performance across content areas.

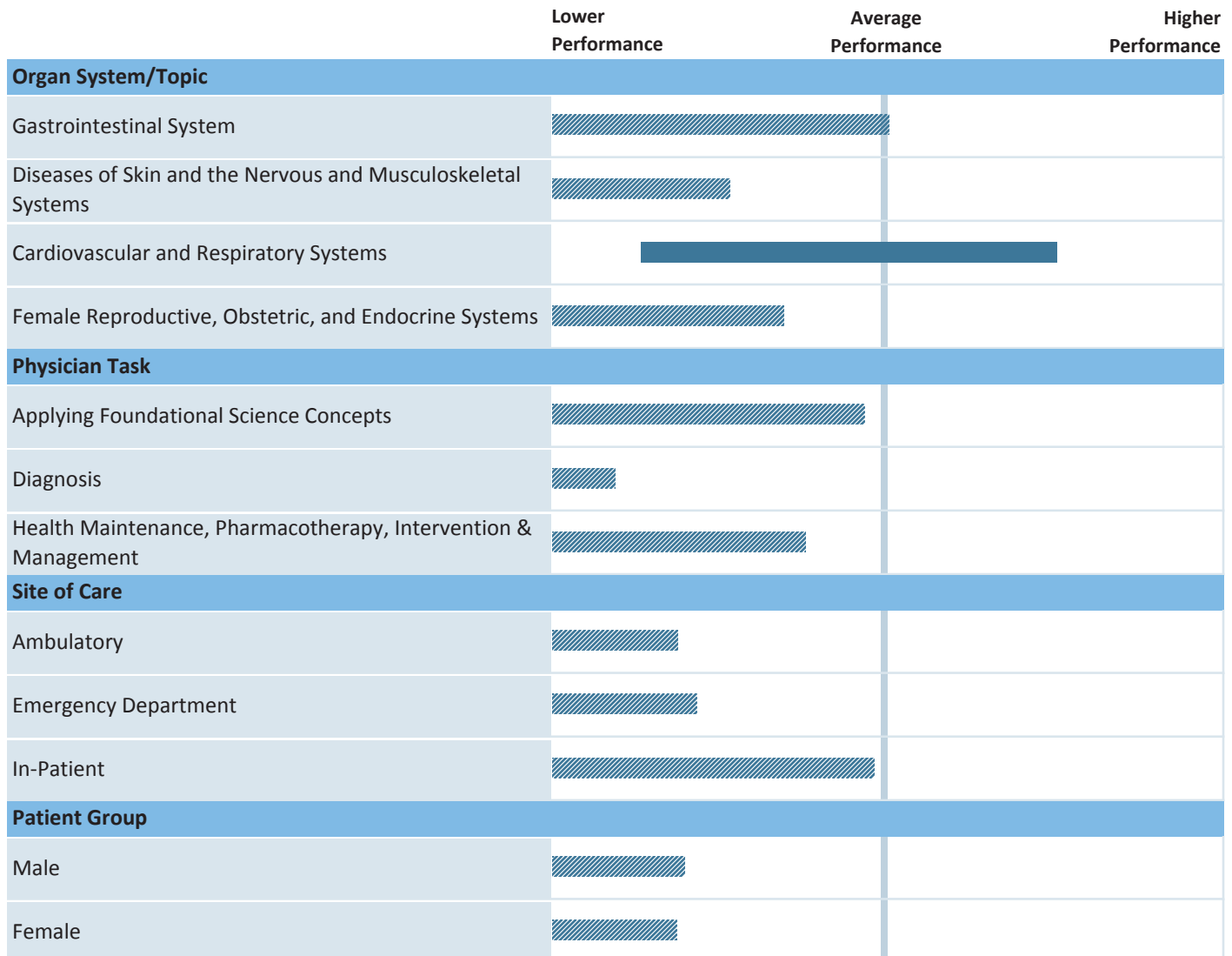


Exhibit F

PSYCHIATRY EXAMINATION**EXAMINEE PERFORMANCE PROFILE REPORT****ID: 2138****Name: Zangara Jason Andrew****665060 - Caribbean Medical University School of M****Total Equated Percent Correct Score: 53****Test Date(s): 06/26/2021****Score Interpretation Guide for Examinees**

The enclosed performance report lists your subject examination score and provides a performance profile to aid in self-assessment. NBME® subject examinations provide medical schools with a tool for measuring examinees' understanding of the clinical sciences. Questions on the examinations were written and reviewed by national test committees preparing material for Step 2 Clinical Knowledge (CK) of the United States Medical Licensing Examination® (USMLE®). Prior to publication, test forms are reviewed by a panel of course directors representing the content of each examination. Although these examinations are designed to be broadly appropriate as part of overall examinee assessment, course objectives vary across schools, and the congruence between subject examination content and course objectives should be considered when interpreting test scores.

Subject Examination Scores

The subject examination score is an equated percent correct score that represents mastery of the content domain assessed by the examination. It is calculated as a percentage of items in the total content domain that would be answered correctly based on an examinee's proficiency level on the test. The subject examination scores are equated across test administrations and are statistically adjusted for variations in test form difficulty. Consequently, these scores can be used to compare and track school and examinee performance over time.

The subject examination scores are placed on a classic percent correct metric to ease interpretation and use. This scale provides a useful tool for comparing your performance with that of a nationally representative group taking this examination as an end-of-clerkship assessment.

For recent administrations, the mean and standard deviation for first-time examinees from LCME-accredited U.S. and Canadian medical schools were approximately 84 and 6, respectively.

Precision of Scores

Measurement error is present on all tests, and the standard error of measurement (SEM) provides an index of the (im)precision of scores. The SEM indicates how far the score you earn on the examination is likely to stray from your "true" proficiency level. The SEM is approximately 3 for this examination.

Using the SEM, it is possible to calculate a score interval that indicates how much a score might vary across repeated testing using different sets of items covering the same content. An interval that will encompass about two thirds of the observed scores for a given true score may be found by adding the SEM to a score and subtracting it from that score. For example, if your true proficiency on the examination is 75, the score you achieved on the examination will usually (two times out of three) fall between 72 and 78 ($75 - 3$ and $75 + 3$).

PSYCHIATRY EXAMINATION**EXAMINEE PERFORMANCE PROFILE REPORT****ID: 2138****Name: Zangara Jason Andrew****665060 - Caribbean Medical University School of M****Total Equated Percent Correct Score: 53****Test Date(s): 06/26/2021**

Your score is shown above. The performance profile provides information regarding your content area performance compared to the performance of first-time takers from LCME-accredited medical schools who took this examination as a final clerkship examination under standard testing conditions. The vertical line represents the mean performance of this comparison group.

Performance bands indicate areas of relative strength and weakness. Some bands are wider than others. The width of a performance band reflects the precision of measurement: narrower bands indicate greater precision. Striped shading of a band indicates that your performance band extends beyond the displayed portion of the scale. Because many of the content areas are based on a relatively small number of items, small differences in the location of bands should not be over-interpreted. If two bands overlap, performance in the associated areas should be interpreted as similar. Please note that many items may contribute to more than one content area. Use caution when interpreting differences in performance across content areas.

	Lower Performance	Average Performance	Higher Performance
Organ System/Topic			
Psychotic Disorders			
Anxiety Disorders			
Mood Disorders			
Substance Use Disorders			
Diseases of the Nervous System			
Physician Task			
Diagnosis, including Foundational Science Concepts			
Pharmacotherapy, Intervention & Management			
Site of Care			
Ambulatory			
Emergency Department			
Patient Group			
Male			
Female			
Child (2-12)			

Exhibit G

FAMILY MEDICINE MODULAR CORE EXAMINATION**EXAMINEE PERFORMANCE PROFILE REPORT****ID: 2138****Name: Zangara Jason Andrew****665060 - Caribbean Medical University School of M****FamC Equated Percent Correct Score: 58****Test Date(s): 07/28/2021****Score Interpretation Guide for Examinees**

The enclosed performance report lists your subject examination score and provides a performance profile to aid in self-assessment. NBME® subject examinations provide medical schools with a tool for measuring examinees' understanding of the clinical sciences. Questions on the examinations were written and reviewed by national test committees. Prior to publication, test forms are reviewed by a panel of course directors representing the content of each examination. Although these examinations are designed to be broadly appropriate as part of overall examinee assessment, course objectives vary across schools, and the congruence between subject examination content and course objectives should be considered when interpreting test scores.

Subject Examination Scores

The subject examination score is an equated percent correct score that represents mastery of the content domain assessed by the examination. It is calculated as a percentage of items in the total content domain that would be answered correctly based on an examinee's proficiency level on the test. The subject examination scores are equated across test administrations and are statistically adjusted for variations in test form difficulty. Consequently, these scores can be used to compare and track school and examinee performance over time.

The subject examination scores are placed on a classic percent correct metric to ease interpretation and use. This scale provides a useful tool for comparing your performance with that of a nationally representative group taking this examination as an end-of-clerkship assessment.

For recent administrations, the mean and standard deviation for first-time examinees from LCME-accredited U.S. and Canadian medical schools were approximately 77 and 7, respectively.

Precision of Scores

Measurement error is present on all tests, and the standard error of measurement (SEM) provides an index of the (im)precision of scores. The SEM indicates how far the score you earn on the examination is likely to stray from your "true" proficiency level. The SEM is approximately 4 for this examination.

Using the SEM, it is possible to calculate a score interval that indicates how much a score might vary across repeated testing using different sets of items covering the same content. An interval that will encompass about two thirds of the observed scores for a given true score may be found by adding the SEM to a score and subtracting it from that score. For example, if your true proficiency on the examination is 75, the score you achieved on the examination will usually (two times out of three) fall between 71 and 79 ($75 - 4$ and $75 + 4$).

FAMILY MEDICINE MODULAR CORE EXAMINATION

EXAMINEE PERFORMANCE PROFILE REPORT



ID: 2138

Name: Zangara Jason Andrew

665060 - Caribbean Medical University School of M

FamC Equated Percent Correct Score: 58

Test Date(s): 07/28/2021

Your score is shown above. The performance profile provides information regarding your content area performance compared to the performance of first-time takers from LCME-accredited medical schools who took this examination as a final clerkship examination under standard testing conditions. The vertical line represents the mean performance of this comparison group.

Performance bands indicate areas of relative strength and weakness. Some bands are wider than others. The width of a performance band reflects the precision of measurement: narrower bands indicate greater precision. Striped shading of a band indicates that your performance band extends beyond the displayed portion of the scale. Because many of the content areas are based on a relatively small number of items, small differences in the location of bands should not be over-interpreted. If two bands overlap, performance in the associated areas should be interpreted as similar. Please note that many items may contribute to more than one content area. Use caution when interpreting differences in performance across content areas.

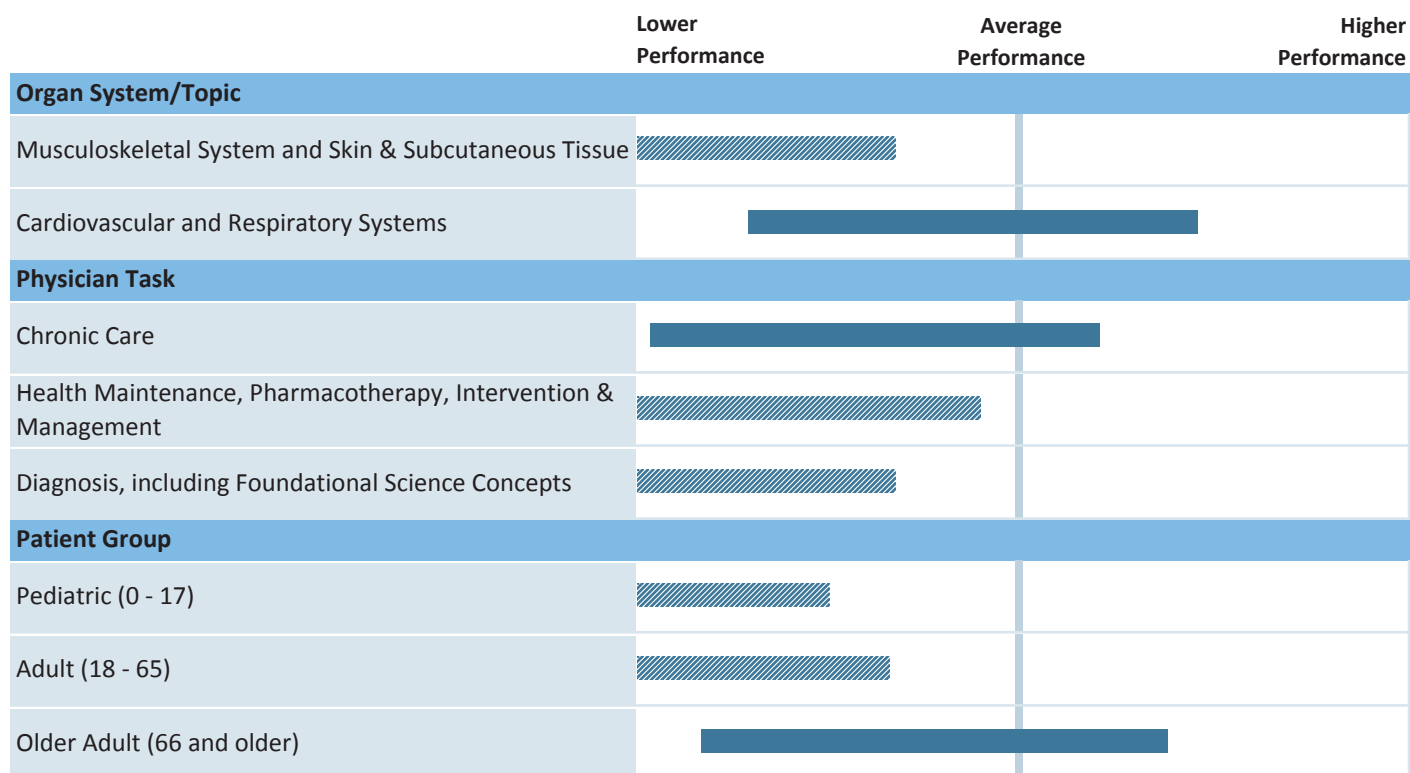


Exhibit H

MEDICINE EXAMINATION**EXAMINEE PERFORMANCE PROFILE REPORT****ID: 2138****Name: Zangara Jason Andrew****665060 - Caribbean Medical University School of M****Total Equated Percent Correct Score: 57****Test Date(s): 08/03/2021****Score Interpretation Guide for Examinees**

The enclosed performance report lists your subject examination score and provides a performance profile to aid in self-assessment. NBME® subject examinations provide medical schools with a tool for measuring examinees' understanding of the clinical sciences. Questions on the examinations were written and reviewed by national test committees preparing material for Step 2 Clinical Knowledge (CK) of the United States Medical Licensing Examination® (USMLE®). Prior to publication, test forms are reviewed by a panel of course directors representing the content of each examination. Although these examinations are designed to be broadly appropriate as part of overall examinee assessment, course objectives vary across schools, and the congruence between subject examination content and course objectives should be considered when interpreting test scores.

Subject Examination Scores

The subject examination score is an equated percent correct score that represents mastery of the content domain assessed by the examination. It is calculated as a percentage of items in the total content domain that would be answered correctly based on an examinee's proficiency level on the test. The subject examination scores are equated across test administrations and are statistically adjusted for variations in test form difficulty. Consequently, these scores can be used to compare and track school and examinee performance over time.

The subject examination scores are placed on a classic percent correct metric to ease interpretation and use. This scale provides a useful tool for comparing your performance with that of a nationally representative group taking this examination as an end-of-clerkship assessment.

For recent administrations, the mean and standard deviation for first-time examinees from LCME-accredited U.S. and Canadian medical schools were approximately 75 and 9, respectively.

Precision of Scores

Measurement error is present on all tests, and the standard error of measurement (SEM) provides an index of the (im)precision of scores. The SEM indicates how far the score you earn on the examination is likely to stray from your "true" proficiency level. The SEM is approximately 4 for this examination.

Using the SEM, it is possible to calculate a score interval that indicates how much a score might vary across repeated testing using different sets of items covering the same content. An interval that will encompass about two thirds of the observed scores for a given true score may be found by adding the SEM to a score and subtracting it from that score. For example, if your true proficiency on the examination is 75, the score you achieved on the examination will usually (two times out of three) fall between 71 and 79 (75 - 4 and 75 + 4).

MEDICINE EXAMINATION**EXAMINEE PERFORMANCE PROFILE REPORT****ID: 2138****Name: Zangara Jason Andrew****665060 - Caribbean Medical University School of M****Total Equated Percent Correct Score: 57****Test Date(s): 08/03/2021**

Your score is shown above. The performance profile provides information regarding your content area performance compared to the performance of first-time takers from LCME-accredited medical schools who took this examination as a final clerkship examination under standard testing conditions. The vertical line represents the mean performance of this comparison group.

Performance bands indicate areas of relative strength and weakness. Some bands are wider than others. The width of a performance band reflects the precision of measurement: narrower bands indicate greater precision. Striped shading of a band indicates that your performance band extends beyond the displayed portion of the scale. Because many of the content areas are based on a relatively small number of items, small differences in the location of bands should not be over-interpreted. If two bands overlap, performance in the associated areas should be interpreted as similar. Please note that many items may contribute to more than one content area. Use caution when interpreting differences in performance across content areas.

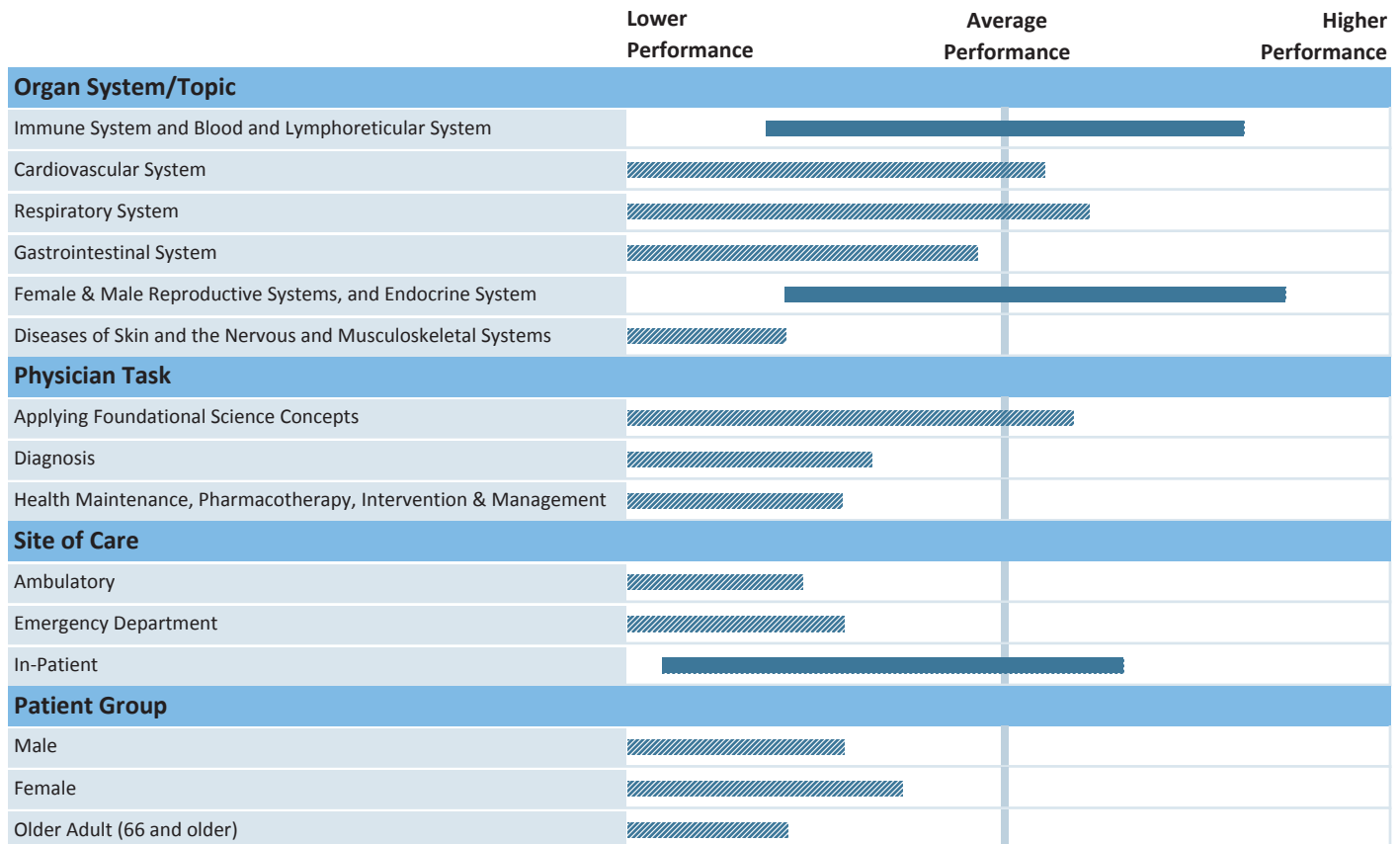


Exhibit I

SUBJECT EXAMINATION PROGRAM

COMPREHENSIVE BASIC SCIENCE EXAMINATION

SCORE REPORT



ID: 2138

Name: Zangara Jason Andrew

665060 - Caribbean Medical University School of M

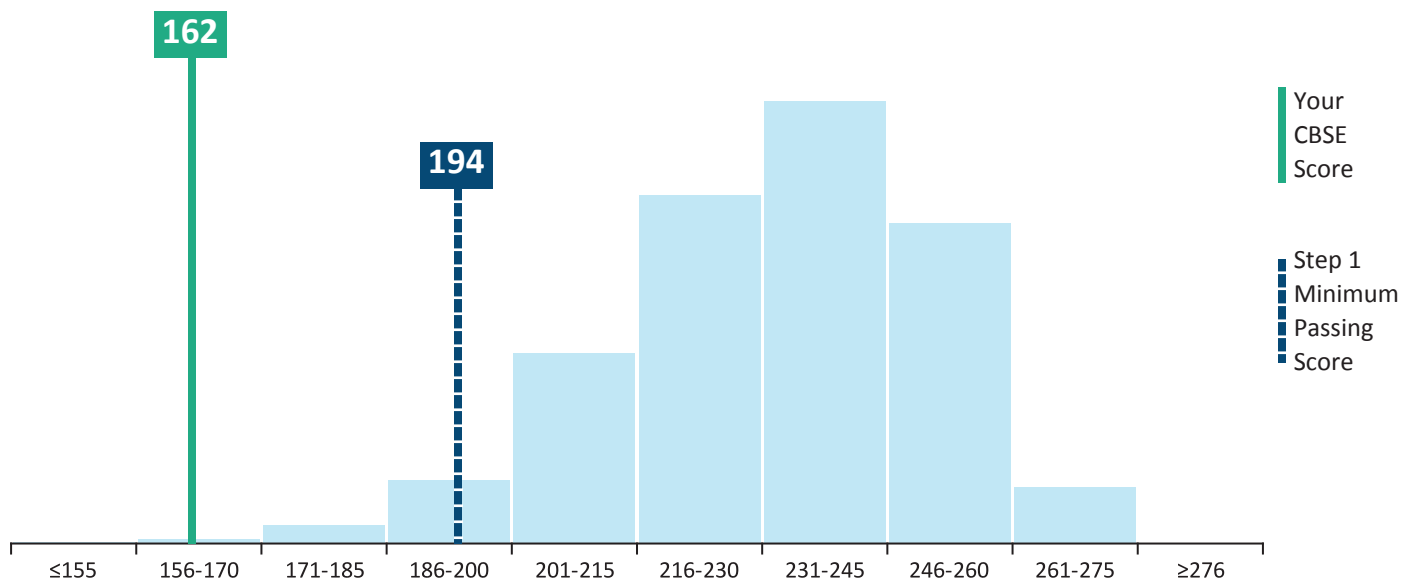
Test Date: September 17, 2021

YOUR PERFORMANCE**Your CBSE Score****162**

Because the Comprehensive Basic Science Examination (CBSE) and the United States Medical Licensing Examination® (USMLE®) Step 1 cover very similar content, CBSE performance can be used in conjunction with other information to assess readiness for Step 1. Your CBSE score represents an estimate of your performance on Step 1 if you had taken both exams under the same conditions and with the same level of knowledge. Estimated performance based on taking CBSE is not a guarantee of your future performance on Step 1. Many factors, including changing levels of knowledge and testing conditions, may result in a Step 1 score that is higher or lower than your estimated score.

YOUR PERFORMANCE COMPARED TO OTHER EXAMINEES

The chart below represents the distribution of Step 1 scores for examinees from US and Canadian medical schools taking Step 1 for the first time between January 1, 2019 and December 31, 2019. Reported scores range from 1-300 with a mean of 232 and a standard deviation of 19.



If you tested repeatedly under the same conditions on a different set of items covering the same content, without learning or forgetting, your CBSE score would fall within one standard error of the estimate (SEE) of your current score two-thirds of the time. The SEE on this exam is 8 points.

Your CBSE score +/- SEE: 154 – 170

SUBJECT EXAMINATION PROGRAM

COMPREHENSIVE BASIC SCIENCE EXAMINATION

SCORE REPORT



ID: 2138

Test Date: September 17, 2021

Name: Zangara Jason Andrew

665060 - Caribbean Medical University School of M

YOUR RELATIVE STRENGTHS AND WEAKNESSES

The boxes below indicate areas of relatively lower or higher performance in each content area within the CBSE examination. The percentage range of items in each content area on the CBSE examination is indicated below. This information can be used to identify areas of strength and weakness to guide future study. Because the exam is highly integrative, NBME® recommends reviewing all content areas if retaking the test.

Strengths and Weaknesses Relative to Your Overall Performance on This Exam

A GREEN box in the "Higher" column indicates that your performance in that area was higher than your overall CBSE performance shown on page 1. A GREEN box in the "Same" column indicates that your performance in that area was similar to or the same as your overall CBSE performance. A GREEN box in the "Lower" column indicates that your performance in that area was lower than your overall CBSE performance.

Strengths and Weaknesses Relative to a Step 1 Comparison Group

A BLUE box in the "Higher" column indicates that your performance in that area was higher than the average performance of recent examinees from US and Canadian medical schools taking Step 1 for the first time (the same comparison group shown on page 1). A BLUE box in the "Average" column indicates that your performance in that area was average relative to the performance of the comparison group. A BLUE box in the "Lower" column indicates that your performance in that area was lower than the average performance of the comparison group.

Performance by Physician Task	(% Items Per Test)	Lower, Same, Higher than Your Overall Performance			Lower, Average, Higher than Comparison Group		
		Lo	S	Hi	Lo	Av	Hi
Applying Foundational Science Concepts	(66 - 68%)						
Diagnosis	(22 - 23%)						

SUBJECT EXAMINATION PROGRAM

COMPREHENSIVE BASIC SCIENCE EXAMINATION

SCORE REPORT



ID: 2138

Test Date: September 17, 2021

Name: Zangara Jason Andrew

665060 - Caribbean Medical University School of M

Performance by System	(% Items Per Test)	Lower, Same, Higher than Your Overall Performance			Lower, Average, Higher than Comparison Group		
		Lo	S	Hi	Lo	Av	Hi
General Principles	(14 - 14%)						
Reproductive & Endocrine Systems	(11 - 12%)						
Behavioral Health and Nervous Systems/Special Senses	(11 - 11%)						
Respiratory and Renal/Urinary Systems	(10 - 12%)						
Blood & Lymphoreticular and Immune Systems	(10 - 10%)						
Musculoskeletal, Skin, & Subcutaneous Tissue	(9 - 9%)						
Multisystem Processes & Disorders	(8 - 9%)						
Cardiovascular System	(7 - 8%)						
Gastrointestinal System	(6 - 7%)						
Biostatistics & Epidemiology/Population Health	(6 - 6%)						

Performance by Discipline	(% Items Per Test)	Lower, Same, Higher than Your Overall Performance			Lower, Average, Higher than Comparison Group		
		Lo	S	Hi	Lo	Av	Hi
Pathology	(49 - 50%)						
Physiology	(27 - 29%)						
Pharmacology	(17 - 19%)						
Biochemistry and Nutrition	(13 - 15%)						
Gross Anatomy & Embryology	(13 - 14%)						
Microbiology & Immunology	(12 - 14%)						
Behavioral Sciences	(10 - 12%)						
Histology & Cell Biology	(10 - 12%)						

SUBJECT EXAMINATION PROGRAM

COMPREHENSIVE BASIC SCIENCE EXAMINATION

SCORE REPORT

**SUPPLEMENTAL INFORMATION: UNDERSTANDING THE CONTENT AREAS**

The information below is a visual representation of the content weighting on this examination that may be informative in guiding remediation. Descriptions of the topics covered in these content areas, as well as other topics covered on Step 1, can be found in the information materials on the USMLE website (<https://www.usmle.org>). Please contact the Subject Examination team at subjectexams@nbme.org if you have additional questions.

Physician Task	(% Items Per Test)
----------------	--------------------

Applying Foundational Science Concepts	(66 - 68%)
--	------------

Diagnosis	(22 - 23%)
-----------	------------

System	(% Items Per Test)
--------	--------------------

General Principles	(14 - 14%)
--------------------	------------

Reproductive & Endocrine Systems	(11 - 12%)
----------------------------------	------------

Behavioral Health and Nervous Systems/Special Senses	(11 - 11%)
--	------------

Respiratory and Renal/Urinary Systems	(10 - 12%)
---------------------------------------	------------

Blood & Lymphoreticular and Immune Systems	(10 - 10%)
--	------------

Musculoskeletal, Skin, & Subcutaneous Tissue	(9 - 9%)
--	----------

Multisystem Processes & Disorders	(8 - 9%)
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Cardiovascular System	(7 - 8%)
-----------------------	----------

Gastrointestinal System	(6 - 7%)
-------------------------	----------

Biostatistics & Epidemiology/Population Health	(6 - 6%)
--	----------

Discipline	(% Items Per Test)
------------	--------------------

Pathology	(49 - 50%)
-----------	------------

Physiology	(27 - 29%)
------------	------------

Pharmacology	(17 - 19%)
--------------	------------

Biochemistry and Nutrition	(13 - 15%)
----------------------------	------------

Gross Anatomy & Embryology	(13 - 14%)
----------------------------	------------

Microbiology & Immunology	(12 - 14%)
---------------------------	------------

Behavioral Sciences	(10 - 12%)
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Histology & Cell Biology	(10 - 12%)
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Exhibit J

SUBJECT EXAMINATION PROGRAM

COMPREHENSIVE BASIC SCIENCE EXAMINATION

SCORE REPORT



ID: 2138

Name: Zangara Jason Andrew

665060 - Caribbean Medical University School of M

Test Date: November 1, 2021

YOUR PERFORMANCE

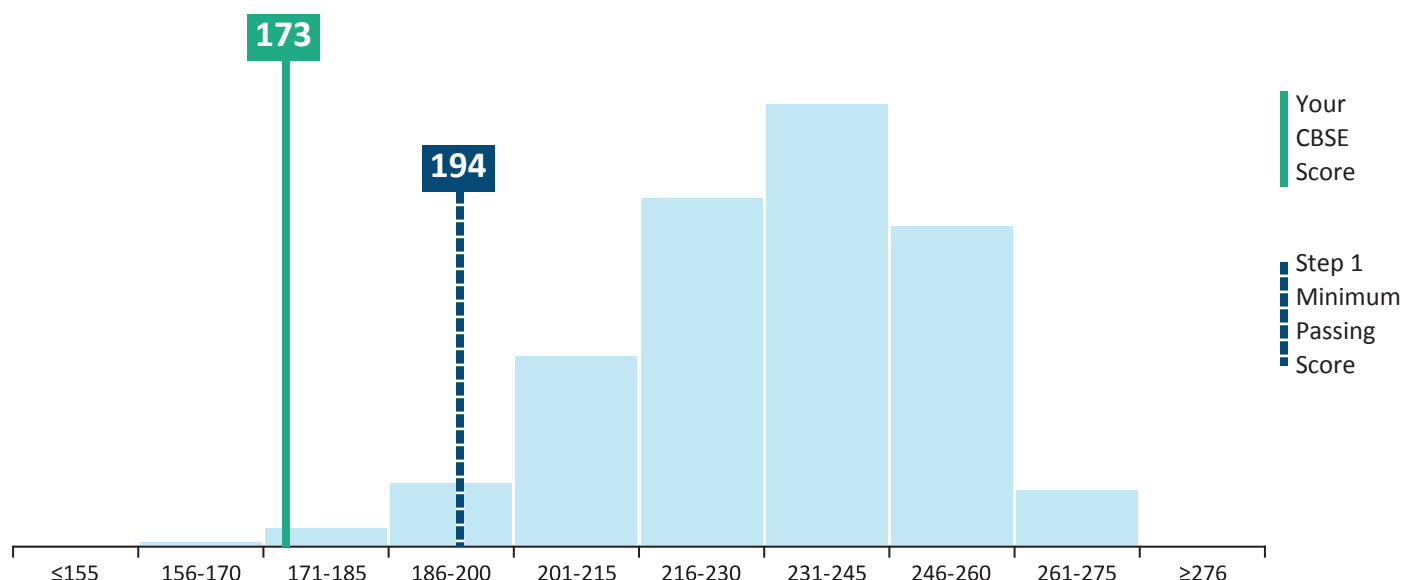
Your CBSE Score

173

Because the Comprehensive Basic Science Examination (CBSE) and the United States Medical Licensing Examination® (USMLE®) Step 1 cover very similar content, CBSE performance can be used in conjunction with other information to assess readiness for Step 1. Your CBSE score represents an estimate of your performance on Step 1 if you had taken both exams under the same conditions and with the same level of knowledge. Estimated performance based on taking CBSE is not a guarantee of your future performance on Step 1. Many factors, including changing levels of knowledge and testing conditions, may result in a Step 1 score that is higher or lower than your estimated score.

YOUR PERFORMANCE COMPARED TO OTHER EXAMINEES

The chart below represents the distribution of Step 1 scores for examinees from US and Canadian medical schools taking Step 1 for the first time between January 1, 2019 and December 31, 2019. Reported scores range from 1-300 with a mean of 232 and a standard deviation of 19.



If you tested repeatedly under the same conditions on a different set of items covering the same content, without learning or forgetting, your CBSE score would fall within one standard error of the estimate (SEE) of your current score two-thirds of the time. The SEE on this exam is 8 points.

Your CBSE score +/- SEE: 165 – 181

SUBJECT EXAMINATION PROGRAM

COMPREHENSIVE BASIC SCIENCE EXAMINATION

SCORE REPORT



ID: 2138

Test Date: November 1, 2021

Name: Zangara Jason Andrew

665060 - Caribbean Medical University School of M

YOUR RELATIVE STRENGTHS AND WEAKNESSES

The boxes below indicate areas of relatively lower or higher performance in each content area within the CBSE examination. The percentage range of items in each content area on the CBSE examination is indicated below. This information can be used to identify areas of strength and weakness to guide future study. Because the exam is highly integrative, NBME® recommends reviewing all content areas if retaking the test.

Strengths and Weaknesses Relative to Your Overall Performance on This Exam

A GREEN box in the "Higher" column indicates that your performance in that area was higher than your overall CBSE performance shown on page 1. A GREEN box in the "Same" column indicates that your performance in that area was similar to or the same as your overall CBSE performance. A GREEN box in the "Lower" column indicates that your performance in that area was lower than your overall CBSE performance.

Strengths and Weaknesses Relative to a Step 1 Comparison Group

A BLUE box in the "Higher" column indicates that your performance in that area was higher than the average performance of recent examinees from US and Canadian medical schools taking Step 1 for the first time (the same comparison group shown on page 1). A BLUE box in the "Average" column indicates that your performance in that area was average relative to the performance of the comparison group. A BLUE box in the "Lower" column indicates that your performance in that area was lower than the average performance of the comparison group.

Performance by Physician Task	(% Items Per Test)	Lower, Same, Higher than Your Overall Performance			Lower, Average, Higher than Comparison Group		
		Lo	S	Hi	Lo	Av	Hi
Applying Foundational Science Concepts	(66 - 68%)						
Diagnosis	(22 - 23%)						

SUBJECT EXAMINATION PROGRAM

COMPREHENSIVE BASIC SCIENCE EXAMINATION

SCORE REPORT



ID: 2138

Name: Zangara Jason Andrew

665060 - Caribbean Medical University School of M

Test Date: November 1, 2021

Performance by System	(% Items Per Test)	Lower, Same, Higher than Your Overall Performance			Lower, Average, Higher than Comparison Group		
		Lo	S	Hi	Lo	Av	Hi
General Principles	(14 - 14%)						
Reproductive & Endocrine Systems	(11 - 12%)						
Behavioral Health and Nervous Systems/Special Senses	(11 - 11%)						
Respiratory and Renal/Urinary Systems	(10 - 12%)						
Blood & Lymphoreticular and Immune Systems	(10 - 10%)						
Musculoskeletal, Skin, & Subcutaneous Tissue	(9 - 9%)						
Multisystem Processes & Disorders	(8 - 9%)						
Cardiovascular System	(7 - 8%)						
Gastrointestinal System	(6 - 7%)						
Biostatistics & Epidemiology/Population Health	(6 - 6%)						

Performance by Discipline	(% Items Per Test)	Lower, Same, Higher than Your Overall Performance			Lower, Average, Higher than Comparison Group		
		Lo	S	Hi	Lo	Av	Hi
Pathology	(49 - 50%)						
Physiology	(27 - 29%)						
Pharmacology	(17 - 19%)						
Biochemistry and Nutrition	(13 - 15%)						
Gross Anatomy & Embryology	(13 - 14%)						
Microbiology & Immunology	(12 - 14%)						
Behavioral Sciences	(10 - 12%)						
Histology & Cell Biology	(10 - 12%)						

SUBJECT EXAMINATION PROGRAM

COMPREHENSIVE BASIC SCIENCE EXAMINATION

SCORE REPORT

**SUPPLEMENTAL INFORMATION: UNDERSTANDING THE CONTENT AREAS**

The information below is a visual representation of the content weighting on this examination that may be informative in guiding remediation. Descriptions of the topics covered in these content areas, as well as other topics covered on Step 1, can be found in the information materials on the USMLE website (<https://www.usmle.org>). Please contact the Subject Examination team at subjectexams@nbme.org if you have additional questions.

Physician Task	(% Items Per Test)
----------------	--------------------

Applying Foundational Science Concepts	(66 - 68%)
Diagnosis	(22 - 23%)

System	(% Items Per Test)
--------	--------------------

General Principles	(14 - 14%)
Reproductive & Endocrine Systems	(11 - 12%)
Behavioral Health and Nervous Systems/Special Senses	(11 - 11%)
Respiratory and Renal/Urinary Systems	(10 - 12%)
Blood & Lymphoreticular and Immune Systems	(10 - 10%)
Musculoskeletal, Skin, & Subcutaneous Tissue	(9 - 9%)
Multisystem Processes & Disorders	(8 - 9%)
Cardiovascular System	(7 - 8%)
Gastrointestinal System	(6 - 7%)
Biostatistics & Epidemiology/Population Health	(6 - 6%)

Discipline	(% Items Per Test)
------------	--------------------

Pathology	(49 - 50%)
Physiology	(27 - 29%)
Pharmacology	(17 - 19%)
Biochemistry and Nutrition	(13 - 15%)
Gross Anatomy & Embryology	(13 - 14%)
Microbiology & Immunology	(12 - 14%)
Behavioral Sciences	(10 - 12%)
Histology & Cell Biology	(10 - 12%)

Exhibit K

SUBJECT EXAMINATION PROGRAM

COMPREHENSIVE BASIC SCIENCE EXAMINATION

SCORE REPORT



ID: 2138

Name: Zangara Jason Andrew

665060 - Caribbean Medical University School of M

Test Date: February 11, 2022

YOUR PERFORMANCE

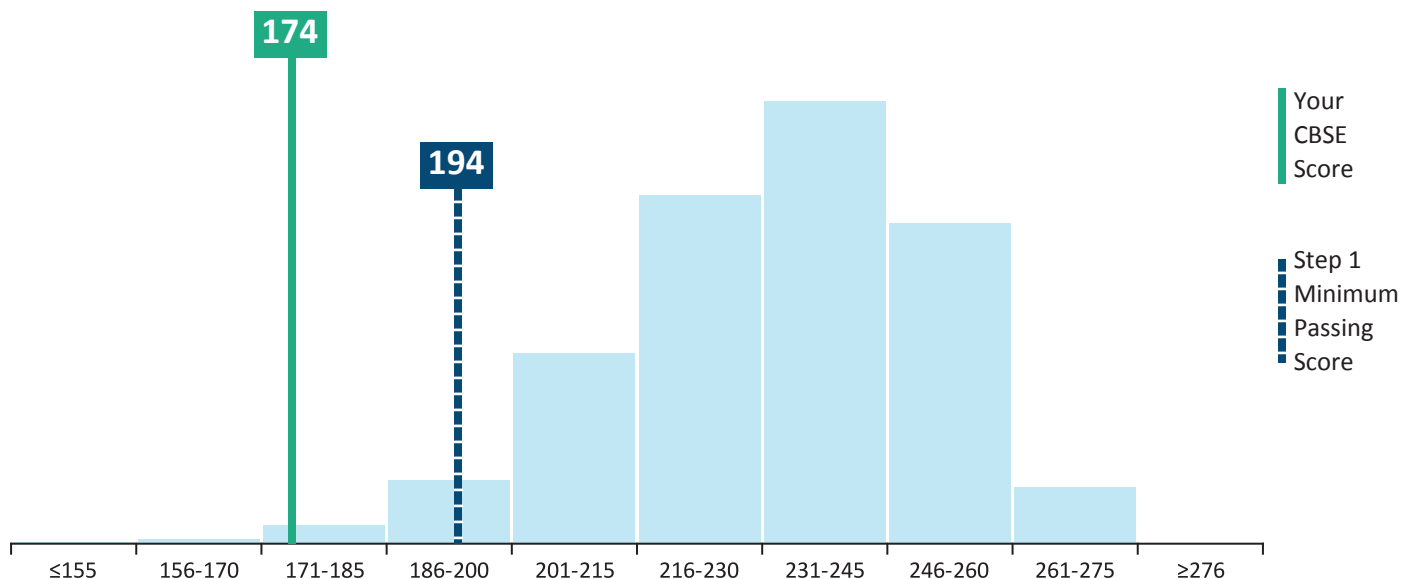
Your CBSE Score

174

Because the Comprehensive Basic Science Examination (CBSE) and the United States Medical Licensing Examination® (USMLE®) Step 1 cover very similar content, CBSE performance can be used in conjunction with other information to assess readiness for Step 1. Your CBSE score represents an estimate of your performance on Step 1 if you had taken both exams under the same conditions and with the same level of knowledge. Estimated performance based on taking CBSE is not a guarantee of your future performance on Step 1. Many factors, including changing levels of knowledge and testing conditions, may result in a Step 1 score that is higher or lower than your estimated score.

YOUR PERFORMANCE COMPARED TO OTHER EXAMINEES

The chart below represents the distribution of Step 1 scores for examinees from US and Canadian medical schools taking Step 1 for the first time between January 1, 2019 and December 31, 2019. Reported scores range from 1-300 with a mean of 232 and a standard deviation of 19.



If you tested repeatedly under the same conditions on a different set of items covering the same content, without learning or forgetting, your CBSE score would fall within one standard error of the estimate (SEE) of your current score two-thirds of the time. The SEE on this exam is 8 points.

Your CBSE score +/- SEE: 166 – 182

SUBJECT EXAMINATION PROGRAM

COMPREHENSIVE BASIC SCIENCE EXAMINATION

SCORE REPORT



ID: 2138

Test Date: February 11, 2022

Name: Zangara Jason Andrew

665060 - Caribbean Medical University School of M

YOUR RELATIVE STRENGTHS AND WEAKNESSES

The boxes below indicate areas of relatively lower or higher performance in each content area within the CBSE examination. The percentage range of items in each content area on the CBSE examination is indicated below. This information can be used to identify areas of strength and weakness to guide future study. Because the exam is highly integrative, NBME® recommends reviewing all content areas if retaking the test.

Strengths and Weaknesses Relative to Your Overall Performance on This Exam

A GREEN box in the "Higher" column indicates that your performance in that area was higher than your overall CBSE performance shown on page 1. A GREEN box in the "Same" column indicates that your performance in that area was similar to or the same as your overall CBSE performance. A GREEN box in the "Lower" column indicates that your performance in that area was lower than your overall CBSE performance.

Strengths and Weaknesses Relative to a Step 1 Comparison Group

A BLUE box in the "Higher" column indicates that your performance in that area was higher than the average performance of recent examinees from US and Canadian medical schools taking Step 1 for the first time (the same comparison group shown on page 1). A BLUE box in the "Average" column indicates that your performance in that area was average relative to the performance of the comparison group. A BLUE box in the "Lower" column indicates that your performance in that area was lower than the average performance of the comparison group.

Performance by Physician Task	(% Items Per Test)	Lower, Same, Higher than Your Overall Performance			Lower, Average, Higher than Comparison Group		
		Lo	S	Hi	Lo	Av	Hi
Applying Foundational Science Concepts	(66 - 68%)						
Diagnosis	(22 - 23%)						

SUBJECT EXAMINATION PROGRAM

COMPREHENSIVE BASIC SCIENCE EXAMINATION

SCORE REPORT



ID: 2138

Name: Zangara Jason Andrew

665060 - Caribbean Medical University School of M

Test Date: February 11, 2022

Performance by System	(% Items Per Test)	Lower, Same, Higher than Your Overall Performance			Lower, Average, Higher than Comparison Group		
		Lo	S	Hi	Lo	Av	Hi
General Principles	(14 - 14%)	■			■		
Reproductive & Endocrine Systems	(11 - 12%)		■		■		
Behavioral Health and Nervous Systems/Special Senses	(11 - 11%)		■		■		
Respiratory and Renal/Urinary Systems	(10 - 12%)	■			■		
Blood & Lymphoreticular and Immune Systems	(10 - 10%)		■		■		
Musculoskeletal, Skin, & Subcutaneous Tissue	(9 - 9%)			■	■		
Multisystem Processes & Disorders	(8 - 9%)		■		■		
Cardiovascular System	(7 - 8%)		■		■		
Gastrointestinal System	(6 - 7%)			■		■	
Biostatistics & Epidemiology/Population Health	(6 - 6%)		■		■		

Performance by Discipline	(% Items Per Test)	Lower, Same, Higher than Your Overall Performance			Lower, Average, Higher than Comparison Group		
		Lo	S	Hi	Lo	Av	Hi
Pathology	(49 - 50%)		■		■		
Physiology	(27 - 29%)		■		■		
Pharmacology	(17 - 19%)		■		■		
Biochemistry and Nutrition	(13 - 15%)	■			■		
Gross Anatomy & Embryology	(13 - 14%)			■	■		
Microbiology & Immunology	(12 - 14%)		■		■		
Behavioral Sciences	(10 - 12%)		■		■		
Histology & Cell Biology	(10 - 12%)		■		■		

SUBJECT EXAMINATION PROGRAM

COMPREHENSIVE BASIC SCIENCE EXAMINATION

SCORE REPORT

**SUPPLEMENTAL INFORMATION: UNDERSTANDING THE CONTENT AREAS**

The information below is a visual representation of the content weighting on this examination that may be informative in guiding remediation. Descriptions of the topics covered in these content areas, as well as other topics covered on Step 1, can be found in the information materials on the USMLE website (<https://www.usmle.org>). Please contact the Subject Examination team at subjectexams@nbme.org if you have additional questions.

Physician Task	(% Items Per Test)
----------------	--------------------

Applying Foundational Science Concepts	(66 - 68%)
Diagnosis	(22 - 23%)

System	(% Items Per Test)
--------	--------------------

General Principles	(14 - 14%)
Reproductive & Endocrine Systems	(11 - 12%)
Behavioral Health and Nervous Systems/Special Senses	(11 - 11%)
Respiratory and Renal/Urinary Systems	(10 - 12%)
Blood & Lymphoreticular and Immune Systems	(10 - 10%)
Musculoskeletal, Skin, & Subcutaneous Tissue	(9 - 9%)
Multisystem Processes & Disorders	(8 - 9%)
Cardiovascular System	(7 - 8%)
Gastrointestinal System	(6 - 7%)
Biostatistics & Epidemiology/Population Health	(6 - 6%)

Discipline	(% Items Per Test)
------------	--------------------

Pathology	(49 - 50%)
Physiology	(27 - 29%)
Pharmacology	(17 - 19%)
Biochemistry and Nutrition	(13 - 15%)
Gross Anatomy & Embryology	(13 - 14%)
Microbiology & Immunology	(12 - 14%)
Behavioral Sciences	(10 - 12%)
Histology & Cell Biology	(10 - 12%)

Exhibit L

Tes/Accommodations-C56557

NBME Test Accommodation Notification Form
 665060 - Caribbean Medical University School of M
 Roster for Admin C56557 Order D16484 - Comprehensive Basic Science
 Exam: BASIC
 Test Window Start Date : 01/31/2022

UPON COMPLETION SEND TO: msstestacom@nbmc.org

Do not Enter or Modify this Information *					
Examinee ID	Last Name	First Name	Candidate ID (NBME Use)	Exam Admin	Region
2138	Zangara	Jason	411959786	BASIC-2001	01-United States and Canada

Exam Pacing
Extra Time - 1.5X

** Other Accommodations? ** Describe Other Accommodations Required
n/a

* The information on this form has been populated from the information you provided on the administration roster. In order for NBME to notify Prometric and facilitate the accommodations you have approved, this spreadsheet MUST be completed and emailed to the address specified above. Region, Exam Pacing, and Other Accommodations must be specified on the administration roster. If any of this information is missing for an examinee, close this spreadsheet, add the information to the administration roster, and then download the form. If these steps are not completed, the scheduling permit will not generate properly.

** If an examinee requires use of a personal item for medical reasons, you MUST mark the "Other Accommodation" option as "Yes" on the administration roster, AND MUST describe the item in the "Describe Other Accommodations Required" column on this sheet. Other accommodations may include text magnification functionality, separate room, etc. The fee for a separate room is \$400.00. Click on this cell for more information.

If you have any questions, please call 215-590-9258.

Exhibit M

SUBJECT EXAMINATION PROGRAM

COMPREHENSIVE BASIC SCIENCE EXAMINATION (CBSE)

EXAMINEE PERFORMANCE REPORT



ID: 000000000

Name: Student A

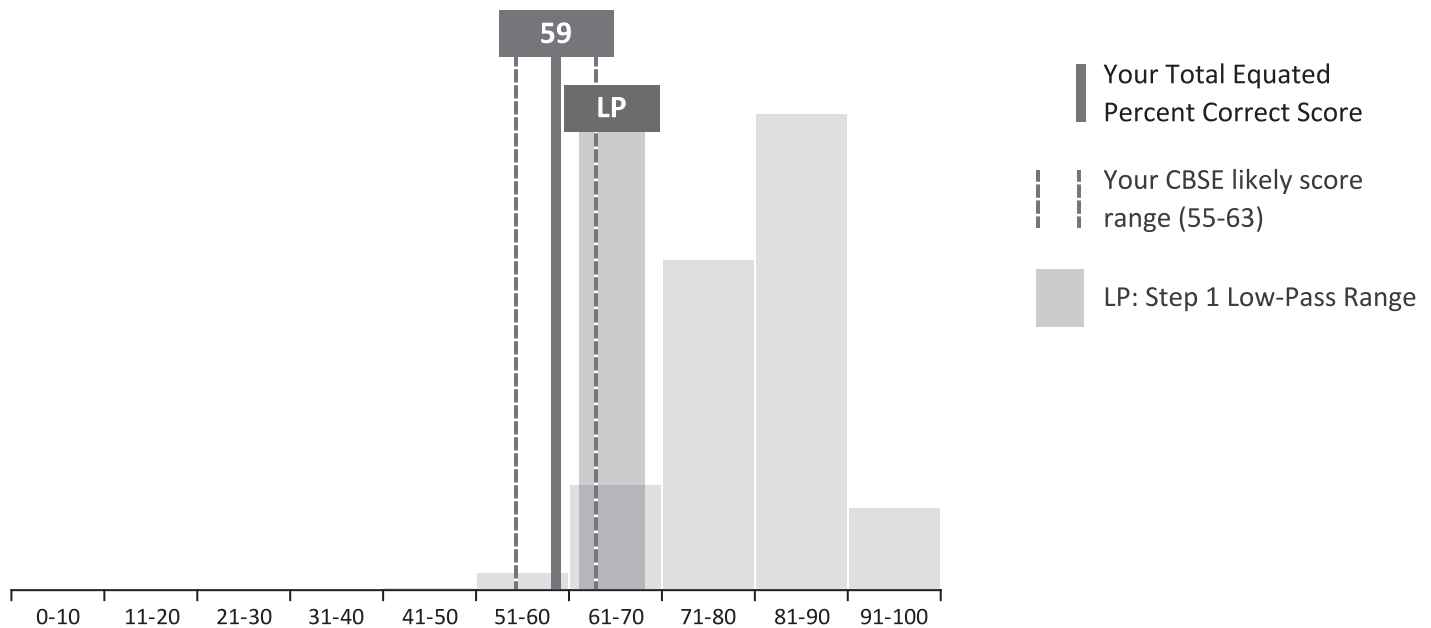
000000 - Generic Medical School

Total Equated Percent Correct Score: 59

Test Date: Month Day, Year

The chart below represents the performance of a 2020 national cohort of students from LCME-accredited medical schools. Your total equated percent correct (EPC) score on this CBSE exam is shown along with a range that corresponds to low passing performance (above but near the minimum passing score) on the United States Medical Licensing Examination® (USMLE®) Step 1.

Based on your performance on this CBSE, your estimated probability of passing Step 1 if you test within a week is 75%.

**Interpreting Your Overall Results:**

- **Readiness for Step 1:** Since CBSE and Step 1 cover very similar content, CBSE performance can be used in conjunction with other information to assess readiness for Step 1.
- **Your CBSE equated percent correct score** represents the percentage of the content that you have mastered. It has been statistically adjusted to account for slight variations in exam form difficulty and may be slightly lower or higher than the actual percentage of questions you answered correctly on this specific form.
- **Your estimated probability of passing Step 1** is calculated based on examinees who tested within one week of taking Step 1 for the first time. If you tested more than a week before you are scheduled to take Step 1, your estimated probability may be different. Your estimated probability is not a guarantee of your future Step 1 performance. Many factors (e.g., changing levels of knowledge) may impact your performance on Step 1.
- **Your likely score range** indicates how much your score could change if you tested again without learning or forgetting. Under those conditions, your CBSE score would fall within 4 points of your current score two-thirds of the time.

SUBJECT EXAMINATION PROGRAM

COMPREHENSIVE BASIC SCIENCE EXAMINATION (CBSE)

EXAMINEE PERFORMANCE REPORT



ID: 000000000

Name: Student A

000000 - Generic Medical School

Total Equated Percent Correct Score: 59

Test Date: Month Day, Year

Interpreting Your Content Area Results:

- **Your equated percent correct (EPC) scores** indicate the percentage of the content that you have mastered. EPC scores are statistically adjusted to account for slight variations in exam form difficulty and may be slightly lower or higher than the actual percentage of questions you answered correctly on this specific exam form.
- **The Comparison Group average EPC score** represents the estimated performance of the 2020 cohort of Step 1 first-takers from LCME-accredited medical schools on CBSE.
- **The green boxes** indicate whether your performance was statistically lower, about the same, or statistically higher than the performance of the Comparison Group after taking into account the precision of each content area score. Content area EPC scores are less precise than total test EPC scores, so small differences in content area scores should not be overinterpreted.
- **You may use this report to identify areas of strength and weakness.** Keep in mind that some content areas are more difficult than others, and some comprise larger portions of the exam. The percentage of questions for each area may not add up to 100%.

	Your EPC Score	Comparison Group Average EPC Score	Score Comparison:			% of Questions
			Lower	Same	Higher	
Performance by Physician Task						
Applying Foundational Science Concepts	54	79				60 - 70%
Diagnosis	74	83				20 - 25%
Evidence-Based Medicine	37	80				4 - 6%

SUBJECT EXAMINATION PROGRAM

COMPREHENSIVE BASIC SCIENCE EXAMINATION (CBSE)

EXAMINEE PERFORMANCE REPORT



ID: 000000000

Name: Student A

000000 - Generic Medical School

Total Equated Percent Correct Score: 59

Test Date: Month Day, Year

	Comparison Group					% of Questions
	Your EPC Score	Average EPC Score	Score Comparison: Lower	Same	Higher	
Performance by System						
General Principles	48	78				12 - 16%
Behavioral Health and Nervous Systems/Special Senses	68	80				9 - 13%
Reproductive & Endocrine Systems	59	81				9 - 13%
Respiratory and Renal/Urinary Systems	48	79				9 - 13%
Blood & Lymphoreticular and Immune Systems	59	81				7 - 11%
Multisystem Processes & Disorders	61	82				6 - 10%
Musculoskeletal, Skin, & Subcutaneous Tissue	63	82				6 - 10%
Cardiovascular System	69	79				5 - 9%
Gastrointestinal System	69	80				5 - 9%
Biostatistics & Epidemiology/Population Health	37	80				4 - 6%
Performance by Discipline						
Pathology	59	81				44 - 52%
Physiology	58	80				25 - 35%
Microbiology & Immunology	53	81				16 - 26%
Biochemistry and Nutrition	60	81				14 - 24%
Pharmacology	56	83				15 - 22%
Gross Anatomy & Embryology	52	76				11 - 15%
Behavioral Sciences	84	87				8 - 13%
Histology & Cell Biology	40	78				8 - 13%
Genetics	45	80				5 - 9%